



April 17, 2012

Mr. Jon Knodel  
USEPA Region VII  
Mail Code: AWMD/APCO  
901 N 5<sup>th</sup> Street  
Kansas City, KS 66101

Re: Westar Energy - Jeffrey Energy Center Unit 1  
Interim NSPS Alternative Opacity Monitoring Plan

Dear Mr. Knodel:

As discussed earlier today, Westar Energy, Inc. (Westar) is requesting EPA approval of an interim NSPS Alternative Opacity Monitoring Plan (AOMP) for Jeffrey Energy Center (JEC) Unit 1. The JEC1 electrostatic precipitator (ESP) is currently being rebuilt and will have a similar configuration to JEC Units 2 and 3. We are proposing to utilize the EPA approved Unit 3 indicators<sup>1</sup> for Unit 1 until a new AOMP is developed and approved (see attached Table for the Unit 3 excursion thresholds). This interim AOMP would become applicable once the unit is brought back on-line following the outage, and would continue to apply until we receive EPA approval of the new AOMP. Westar proposes to submit a revised AOMP within 180 days of when the new ESP becomes operational.

If you have any questions, please feel free to contact me at 785-575-8447.

Sincerely,

WESTAR ENERGY, INC.

Stephanie Hirner  
Supv., Air Permitting and Compliance

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<sup>1</sup> EPA approval dated 2/27/12

**Alternative Opacity Monitoring Plan for Jeffrey Energy Center Units 1, 2, and 3**

December 2011			
I. Indicator	Indicator #1	Indicator #2	Indicator #3
Measurement Approach	FGD Liquid to Gas Ratio (L/G) The number of pumps in operation is monitored by the FGD control system and displayed in the FGD control room. The liquid flow rate is determined by multiplying the pump capacity by the number of pumps in operation. The gas flow rate is determined based on the certified CEMS installed at the exhaust stack for the unit. Both 6-minute and 1-hour averages will be utilized to develop a 3-hour block average L/G.	ESP transformer-rectifier sets (TR-sets) out of service The operating status of each TR set is monitored by the ESP control system and displayed on a master remote terminal unit in each ESP control room.	Opacity Qualitative opacity assessments are conducted by knowledgeable observers.
II. Indicator Range	An excursion is defined as an L/G below 0.00040 for any 3-hour block average operating period excluding those events defined as startup, shutdown or malfunction.	<u>Unit 1</u> An excursion is defined as more than one complete gas path out of service at the same time (i.e., any full row with all 4 TR sets out of service), or more than 8 TR-sets out of service at the same time, for any 3-hour block average operating period, excluding those events defined as startup, shutdown or malfunction.  <u>Unit 2</u> An excursion is defined as more than 6 ESP bus sections out of service at the same time in any one gas path (one ESP bus section consists of two TR-sets), or more than 46 TR-sets out of service at the same time, for any 3-hour block average operating period, excluding those events defined as startup, shutdown or malfunction.  <u>Unit 3</u> An excursion is defined as more than 6 ESP bus sections out of service at the same time in any one gas path (one ESP bus section consists of two TR-sets), or more than 18 TR-sets out of service at the same time, for any 3-hour block average operating period, excluding those events defined as startup, shutdown or malfunction.	An excursion is defined as a Qualitative Assessment (QA) during which the stack opacity appears to exceed 20 percent, excluding those events defined as startup, shutdown, or malfunction.
III. Excursion Follow-Up	As soon as practicable following an excursion of the L/G threshold, the plant will conduct a qualitative assessment (QA). If the excursion occurs at a time when a QA cannot be conducted (e.g., night time, weather which affects visibility, etc.) then the QA shall be conducted within 24 hours of the excursion. If the Unit is brought out of service for corrective action prior to the time when a QA can be conducted, the QA will be performed once the Unit is operational again.	If an excursion is documented during the weekly observation, the plant will conduct a qualitative assessment (QA) as soon as practicable following discovery of the excursion. If the excursion occurs at a time when a QA cannot be conducted (e.g., night time, weather which affects visibility, etc.), then the QA shall be conducted within 24 hours of the excursion. If the Unit is brought out of service for corrective action prior to the time when a QA can be conducted, the QA will be performed once the Unit is operational again.	Not applicable.
IV. Performance Criteria			
A. Data Representativeness	The FGD pumps provide the slurry flow that is responsible for SO <sub>2</sub> reduction and particulate removal.	The TR-set provides the power for the electric field that enables particulate collection within each ESP bus section. When an individual TR-set is out of service, the overall collection efficiency of the ESP is reduced. This effect is increased with the simultaneous failure of multiple TR-sets. The amount of reduction is determined by the number of TR-sets out of service and their location within the ESP.	Not applicable.
B. Verification of Operational Status	Not applicable. Monitoring approach uses existing equipment.	Not applicable. Monitoring approach uses existing equipment.	Not applicable.
C. QA/QC Practices and Criteria	The gas flow monitor is certified and operated in accordance with the requirements of 40 CFR Part 75.	All indicators are operated and maintained in accordance with manufacturer's specifications. Equipment is repaired or replaced as needed.	The person responsible for making qualitative opacity assessments shall be knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting and wind, and the presence of uncombined water in the plume.
D. Monitoring Frequency	Continuous	Weekly	Weekly
E. Data Collection Procedures	In the event the liquid to gas ratio is less than 0.00040, the plant will automatically record the date and time of the event and the operating status of the FGD modules. If a QA is required, records of the QA shall be maintained and shall include the time and date of the assessment, a description of the emission point from which the unusual emissions emanated, the steps taken to correct the abnormal emissions and the name of the person conducting the QA. If the QA is postponed as allowed above, the reason for the postponement shall be documented.	At a minimum, once per week, the plant will manually record the date, time and operating status of all TR-sets in both ESP sections. If a QA is required, records of the QA shall be maintained and shall include the time and date of the assessment, a description of the emission point from which the unusual emissions emanated, the steps taken to correct the abnormal emissions and the name of the person conducting the QA. If the QA is postponed as allowed above, the reason for the postponement shall be documented.	Once per week a QA will be conducted of each boiler stack in operation at the time of the scheduled QA. Records of each QA shall be maintained and shall include the time and date of the assessment, a description of the emission point from which any unusual emissions emanated, the steps taken to correct the abnormal emissions and the name of the person conducting the QA.
F. Averaging Period	Three-hour block averages	Three-hour block averages	Not applicable.